

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 0417 : 1999

(ISO 14284 : 1996)

**Steel and iron—
Sampling and preparation
of samples for the determination
of chemical composition**

ICS 77.080.01

Descriptors : cast-iron, steels, chemical analysis and testing, determination of content,
sampling equipment, specimen preparation

Reference number : **JIS G 0417 : 1999 (E)**

G 0417 : 1999 (ISO 14284 : 1996)

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

This Standard has been employed **ISO 14284 : 1996** *Steel and iron—Sampling and preparation of samples for the determination of chemical composition* for the purpose of conforming to the International Standard.

Date of Establishment: 1999-12-20

Date of Public Notice in Official Gazette: 1999-12-20

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Iron and Steel

JIS G 0417:1999, First English edition published in 2000-10
Second edition : 2002-04

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Steel and iron—Sampling and preparation of samples for the determination of chemical composition

Introduction This Japanese Industrial Standard has been prepared based on ISO 14284, *Steel and iron—Sampling and preparation of samples for the determination of chemical composition* issued in 1996 as the first edition without changing the technical contents.

The portions underlined with dots in this Standard are not stated in the original International Standard.

1 Scope This Standard specifies methods for sampling and sample preparation for the determination of the chemical composition of pig iron, cast iron and steel. Methods are specified for use with both liquid and solid metal.

2 Normative references The following standards contain provisions which, through reference in this Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

JIS G 1253 *Iron and steel—Method for spark discharge atomic emission spectrometric analysis*

JIS R 6001 *Bonded abrasive grain sizes*

ISO 377-1 : 1989 *Steel and steel products—Location of samples and test pieces for mechanical testing*

ISO 9147 : 1987 *Pig-irons—Definition and classification*

Informative reference : ISO 377-1 : 1989 has been replaced by the following standard:

ISO 377 : 1997 *Steel and steel products—Location and preparation of samples and test pieces for mechanical testing*

3 Definitions For the purposes of this Standard, the following definitions apply.

3.1 chemical method of analysis Method for the determination of chemical composition in which the sample is submitted to chemical reaction.

3.2 physical method of analysis Method for the determination of chemical composition in which the determination of composition is carried out without submitting the sample to chemical reaction, for example an optical emission spectrometric method, an X-ray fluorescence spectrometric method.

3.3 thermal method of analysis Method for the determination of chemical composition in which the sample is submitted to a process of heating, combustion or fusion.